AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

Claim 1 (Previously Presented): A method comprising:

measuring a cumulative emission spectrum for each of a plurality of color channels of a display with a respective color channel operating at a maximum level and other color channels operating at minimum levels;

measuring an emission spectrum of the display for a minimum display level;

assuming light source emission spectra for light sources associated with the color channels;

calculating a light leakage spectrum for each of the color channels based on the measured emission spectrum for the display and the assumed light source emission spectra for the light sources associated with the respective color channel; and

calculating a single-channel emission spectrum for each of the color channels based on the measured cumulative emission spectrum and the calculated light leakage spectrum for the respective color channel.

Claim 2 (Original): The method of claim 1, wherein the cumulative emission spectrum of the display comprises a summation of emission spectra for all of the color channels.

Claim 3 (Previously Presented): The method of claim 2, wherein the emission spectrum for each of the color channels combines the light source emission spectrum for a light source associated with the respective color channel and a transmission spectrum for a light valve in the display.

Claim 4 (Original): The method of claim 3, wherein the transmission spectrum is dependent upon a digital driving signal and a wavelength of the light source.

Claim 5 (Previously Presented): The method of claim 1, wherein assuming the emission spectra for the light sources comprises using a color channel reconstruction method.

Claim 6 (Original): The method of claim 5, wherein the color channel reconstruction method comprises determining the light source emission spectrum for each of the color channels based on the measured emission spectra for the color channels, an inverted contrast ratio for the display, and an assumed transmission spectrum for a light valve in the display.

Claim 7 (Original): The method of claim 1, wherein, at the minimum display level, all of the channels operate at minimum levels in response to minimum digital driving signals to generate a black display.

Claim 8 (Original): The method of claim 1, wherein the plurality of color channels comprises a red channel, a green channel, and a blue channel.

Claim 9 (Original): The method of claim 1, wherein the display comprises a liquid crystal display (LCD).

Claim 10 (Withdrawn): A multi-channel display system comprising:

a display;

a plurality of color channels in the display;

a light source and a light valve to model each of the color channels; and

means for driving the light valve based on a color profile defined by single-channel emission spectra, the single-channel emission spectra calculated from measured cumulative emission spectra and light leakage spectra for each of the color channels.

Claim 11 (Withdrawn): The multi-channel display system of claim 10, further comprising a liquid crystal display (LCD).

Claim 12 (Withdrawn): The multi-channel display system of claim 10, wherein the light source comprises a backlight and a light filter.

Claim 13 (Withdrawn): The multi-channel display system of claim 10, wherein the light valve comprises fixed polarizers and rotating liquid crystal cells (LCC).

Claim 14 (Withdrawn): The multi-channel display system of claim 13, wherein the LCC rotation depends on a wavelength of the light source and a digital driving signal.

Claim 15 (Withdrawn): The multi-channel display system of claim 10, wherein the plurality of color channels comprises a red channel, a green channel, and a blue channel.

Claim 16 (Withdrawn): The multi-channel display system of claim 10, wherein the driving means sets a digital driving signal of the light valve based on the color profile.

Claim 17 (Withdrawn): The multi-channel display system of claim 10, wherein the light leakage spectrum is calculated based on a measured emission spectrum for the display at a minimum level and assumed emission spectra for the light sources.

Claim 18 (Currently Amended): A method for determining hue shifts in images resulting from light leakage from adjacent color channels in images reconstructed by a multi-channel display device comprising:

measuring a cumulative channel emission spectrum for each of a plurality of color channels of the multi-channel display device;

determining a light leakage spectrum for each of the plurality of color channels of the multi-channel display device; and

determining a single-channel emission spectrum for each of a plurality of color channels of a display by calculating the difference between the cumulative channel ~~based on a measured~~ emission spectrum and ~~a light~~ the light leakage spectrum for each of the plurality of color channels of the multi-channel display device ~~a respective one of the color channels~~.

Claim 19 (Previously Presented): The method of claim 18, further comprising calculating the light leakage spectrum based on a measured emission spectrum for the display operating at a minimum level and assumed emission spectra for light sources within the display.

Claim 20 (Previously Presented): The method of claim 19, further comprising assuming the emission spectra for the light sources using a color channel reconstruction method.

Claim 21 (Previously Presented): The method of claim 20, wherein the color channel reconstruction method comprises determining a light source emission spectrum for each of the color channels based on measured emission spectra for the color channels, an inverted

contrast ratio for the display, and an assumed transmission spectrum for a light valve in the display.

Claim 22 (Previously Presented): The method of claim 18, wherein the measured emission spectrum for the respective one of the color channels is measured with the respective one of the color channels operating at a maximum level and other ones of the color channels operating at minimum levels.

Claim 23 (Original): The method of claim 18, wherein the plurality of color channels comprises a red channel, a green channel, and a blue channel.

Claim 24 (Original): The method of claim 18, wherein the display comprises a liquid crystal display (LCD).

Claim 25 (Previously Presented): A computer-readable medium comprising instructions for causing a programmable processor to:

receive a cumulative emission spectrum for each of a plurality of color channels of a display with a respective color channel operating at a maximum level, and other color channels operating at minimum levels;

receive an emission spectrum of the display for a minimum display level;

assume light source emission spectra for light sources associated with the color channels;

calculate a light leakage spectrum for each of the color channels based on the measured emission spectrum for the display and the assumed light source emission spectra for the light sources associated with the respective color channel;

calculate a single-channel emission spectrum for each of the color channels based on the measured cumulative emission spectrum and the calculated light leakage spectrum for the respective the color channel; and

drive a light valve in the display based on a color profile defined by the single-channel emission spectrum.

Claim 26 (Previously Presented): The computer-readable medium of claim 25, further comprising instructions to cause the processor to assume the light source emission spectra for the light sources using a color channel reconstruction method.

Claim 27 (Original): The computer-readable medium of claim 26, wherein the color channel reconstruction method comprises determining the light source emission spectrum for each of the color channels based on the received emission spectra for the color channels, an inverted contrast ratio for the display, and an assumed transmission spectrum for the light valve.

Claim 28 (Original): The computer-readable medium of claim 26, wherein the light valve is driven by a digital driving signal based on the color profile.